A U.S. Department of Energy National Laboratory

News Release

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For immediate release

Argonne recognized for "green computing" in 2009 HPCwire Readers' and Editors' Choice Awards

Portland, Ore. (Nov. 16, 2009) — The U.S. Department of Energy's (DOE) Argonne National Laboratory has been awarded the HPCwire's Readers' Choice Award for Best Application of Green Computing. The award was presented by Tomas Tabor, publisher of HPCwire, at the annual Supercomputing Conference (SC09), currently ongoing in Portland, Ore.

"This award, which represents a partnership between the HPCwire global readership and our publishing team, is a salute from the global HPC community," said Tabor. "Being selected as an award recipient means that you are in the minds of HPCwire readers, editors and luminaries in the field. I'd like to congratulate Argonne National Laboratory for being selected by our readers for a 2009 award."

"We are honored to be recognized by the high performance computing community," said Pete Beckman, director of Argonne's Leadership Computing Facility (ALCF). "At Argonne, we are continually looking for ways to be more energy efficient and environmentally friendly."

The ALCF is home to Intrepid, an energy-efficient IBM Blue Gene/P supercomputer, which uses about one-third as much electricity as a comparable supercomputer. Argonne is able to achieve such savings in energy through a variety of innovative operational techniques, including methods employed to cool the supercomputer – a process that normally requires more electricity than powering the machine itself.

For example, the ALCF saves up to tens of thousands of dollars a month in electricity costs during the winter months by using the Chicago area's frigid temperatures to chill the water used to cool Intrepid, alleviating the need to run power-hungry centrifugal chillers. In addition, ALCF is working with IBM to use the warmest possible water temperature necessary to effectively cool the computer systems, leading to even greater savings and reduced environmental impact.

Argonne computing and storage systems have "smart power" management functionality that allows them to turn off or throttle back the power consumption. Argonne is working on strategies to get maximum benefit from these capabilities – for instance, methods to correlate power consumption to the jobs and then develop algorithms that might run power-hungry jobs at night, when electricity is cheaper.

The ALCF was established in 2006 and provides resources that make computationally intensive projects of the largest scale possible. ALCF staff members operate this facility for the U.S. Department of Energy's Office of Science and provide in-depth expertise and assistance in using ALCF systems and optimizing user applications. Major ALCF projects are selected through the Innovative and Novel Computational Impact on Theory and Experiment (INCITE) program. The INCITE program seeks computationally intensive research projects that have the potential to make high-impact scientific advances through large allocations of computer time, resources and data storage.

The coveted HPCwire Readers' and Editors' Choice Awards are determined through a survey conducted by HPCwire and online polling of the global HPCwire audience, along with a rigorous selection process involving HPCwire editors and industry luminaries. The awards are an annual feature of the publication and constitute prestigious recognition from the global HPC community. These awards are revealed each year to kick off the SC conference, which showcases high performance computing, networking, storage and data analysis.

The full list of winners for the 2009 awards can be found at the HPCwire website: http://www.HPCwire.com.

The U.S. Department of Energy's Argonne National Laboratory seeks solutions to pressing national problems in science and technology. The nation's first national laboratory, Argonne conducts leading-edge basic and applied scientific research in virtually every scientific discipline. Argonne researchers work closely with researchers from hundreds of companies, universities, and federal, state and municipal agencies to help them solve their specific problems, advance America's scientific leadership and prepare the nation for a better future. With employees from more than 60 nations, Argonne is managed by UChicago Argonne, LLC for the U.S. Department of Energy's Office of Science.

Published by Tabor Communications, HPCwire is the most recognized and accessed news and information site covering the entire ecosystem of High Productivity Computing (HPC). HPCwire is the publication of choice for the global community of business and technology professionals interested in computationally and data-intensive computing, including infrastructure topics such as software, middleware, hardware, networking, storage, tools and applications. HPCwire delivers exclusive interviews with industry leaders on topics ranging from business and economic issues to advanced and emerging technology directions, all in a timely and easily-accessible Internet format. With a powerful combination of email distribution and web site portal, HPCwire is enjoyed each week by several hundred thousand readers. Through news, analysis and information, HPCwire facilitates in unifying the global HPC community. HPCwire can be found online at http://www.HPCwire.com.